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EXAMINER	
NIU, XINNING	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andrew Meikle on 07/29/2009.

The application has been amended as follows:

1-4. (Canceled)

5. (Currently Amended) A nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p-type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

an emission-side end surface protective film and a rear-side end surface protective film opposed thereto on the end surfaces of resonance sandwiching the waveguide region, wherein the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light, and

the rear-side end surface protective film includes a first end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation, and a second end surface protective film having a higher reflectivity for the wavelength of the emitted light from the active layer, ~~wherein~~

the emission-side end surface protective film includes a third end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation and having a lower reflectivity for the wavelength of the emitted light from the active layer, ~~and wherein~~

the emission-side end surface protective film covers the stripe-shaped waveguide region or an emission-side of the end surface of the resonance,

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor laver and the first end surface protective film.

6. (Currently Amended) A nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p- type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

an emission-side end surface protective film and a rear-side end surface protective film opposed thereto on the end surfaces of resonance sandwiching the waveguide region, wherein the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

the rear-side end surface protective film includes a first end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation, and a second end surface protective film having a higher reflectivity for the wavelength of the emitted light from the active layer,

the emission-side end surface protective film includes a third end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation,

the first end surface protective film and/or the third end surface protective film has a lower reflectivity for the wavelength of the emitted light from the active layer, ~~and wherein~~ the emission-side end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor layer and the first end surface protective film.

7. (Previously Presented) The nitride semiconductor laser device according to claim 5, wherein the emission-side end surface protective film includes a fourth end surface protective film having a higher reflectivity for the wavelength of the emitted light from the active layer (104).

8. (Previously Presented) The nitride semiconductor laser device according to claim 7, wherein each of the first, second, third and fourth end surface protective films has a single-layer or multilayer structure.

9. (Currently Amended) A nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p- type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

an emission-side end surface protective film and a rear-side end surface protective film opposed thereto on the end surfaces of resonance sandwiching the waveguide region, wherein

the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

the rear-side end surface protective film includes a first end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation, and a

second end[surface protective film having a higher reflectivity for the wavelength of the emitted light from the active layer,

the emission-side end surface protective film includes a third end surface protective film having a higher reflectivity for the wavelength of the luminescent radiation,

the first and second end surface protective films are laminated so as to at least partially overlap each other, ~~and wherein~~

the emission-side end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance~

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor layer and the first end surface protective film.

10. (Previously Presented) The nitride semiconductor laser device according to claim 8, wherein the third and fourth end surface protective films are laminated so as to at least partially overlap each other.

11. (Previously Presented) The nitride semiconductor laser device according to claim 5, wherein the second end surface protective film is formed in contact with the nitride semiconductor layer.

12. (Previously Presented) The nitride semiconductor laser device according to claim 7, wherein

the fourth end surface protective film is formed in contact with the nitride semiconductor layer.

13. (Currently Amended) The nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p- type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

end surface protective films on both end surfaces of resonance sandwiching the waveguide region, wherein

the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

at least one of the end surface protective films has a higher reflectivity for the wavelength of the luminescent radiation from the luminescent radiation region,

the luminescent radiation region has a lower dislocation density as compared with the periphery thereof, ~~and wherein~~

at least one of the end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance~

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor lager and the first end surface protective film.

14. (Currently Amended) A nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p- type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

end surface protective films on both end surfaces of resonance sandwiching the waveguide region, wherein

the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

at least one of the end surface protective films has a higher reflectivity for the wavelength of the luminescent radiation from the luminescent radiation region, and

the luminescent radiation region has a high impurity concentration as compared with the periphery thereof, ~~and wherein~~

at least one of the end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance:

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor laver and the first end surface protective film.

15. (Original) The nitride semiconductor laser device according to claim 14, wherein the impurity is at least one element selected from the group consisting of H, O, C and Si.

16. (Currently Amended) A nitride semiconductor laser device comprising:

a nitride semiconductor substrate;

a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p- type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

end surface protective films on both end surfaces of resonance sandwiching the waveguide region, wherein

the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

at least one of the end surface protective films has a higher reflectivity for the wavelength of the luminescent radiation from the luminescent radiation region,

the active layer has a light emission wavelength of 390 to 420 nm, and the luminescent radiation has a wavelength of 550 to 600 nm, ~~and wherein~~

at least one of the end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance:

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor layer and the first end surface protective film.

17. (Canceled)

18. (Previously Presented) The nitride semiconductor laser device according to claim 13, wherein the luminescent radiation region is formed in a stripe shape substantially parallel to the waveguide region.

19. (Currently Amended) The nitride semiconductor laser device according to claim 5 ~~claim4,~~ wherein the waveguide region is formed above the luminescent radiation region.

20. (Currently Amended) A nitride semiconductor laser device comprising:
a nitride semiconductor substrate);
a nitride semiconductor layer that has an n-type semiconductor layer, an active layer and a p-type semiconductor layer laminated on or above the nitride semiconductor substrate, and has a stripe-shaped waveguide region for laser light; and

end surface protective films on both end surfaces of resonance sandwiching the waveguide region, wherein

the nitride semiconductor substrate has a luminescent radiation region that absorbs light emitted from the active layer and emits luminescent radiation with a wavelength longer than the wavelength of the emitted light,

at least one of the end surface protective films has a higher reflectivity for the wavelength of the luminescent radiation from the luminescent radiation region, and

the waveguide region is formed in a region that is spaced away from the luminescent radiation region, ~~and wherein~~

at least one of the end surface protective film covers the stripe-shaped waveguide region or an emission-side end surface of resonance,

the end surface protective films further cover both end surfaces of the nitride semiconductor substrate, and wherein

the second end surface protective film is sandwiched by the nitride semiconductor layer and the first end surface protective film.

21. (Currently Amended) A laser apparatus comprising the nitride semiconductor laser device according to claim 13, and a detector that detect the light emission of the nitride semiconductor
laser device, wherein the detector has a spectral sensitivity in a wavelength)~ex of the luminescent radiation higher than a wavelength) λ_{LD} of the emitted light of the nitride semiconductor laser device.

22. (Previously Presented) A laser apparatus comprising the nitride semiconductor laser device according to claim 5, and a detector that detect the light emission of the nitride semiconductor

laser device, wherein the detector has a spectral sensitivity in a wavelength λ_{ex} of the luminescent radiation higher than a wavelength) λ_{LD} of the emitted light of the nitride semiconductor laser device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XNNING NIU whose telephone number is (571)270-1437. The examiner can normally be reached on M-T, 7:30-5:00 EST, Alternate Fridays 7:30-4:00 ES.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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08/05/2009

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